## **Industrial Gases**

## **Fourth Quarter**

## 1999

Issued March 2000

MQ325C(99)-4

(Formerly Series No. MQ28C)

Information about the scope of the survey, methodology, explanation of terms and historical notes for this survey may be found in the introduction of the 1997 Manufacturing Profiles, issued August 1999.

Current data are released electronically on Internet for all individual surveys as they become available. Use: http://www.census.gov/econ/www/manumenu.html. Individual reports can be accessed by choosing "Current Industrial Reports (CIR's)," clicking on "Report Number Index;" from the "Industrial Products by Numeric Index," choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (WK format) to your personal computer.

These data are also available through the U.S. Department of Commerce and STAT-USA Electronic Bulletin Board by subscription. To access, dial 202-482-3870 and follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information. The Internet address is: www.stat-usa.gov/.

Note: Data are now published on the new North American Industry Classification System (NAICS) basis and therefore are not always comparable to the old Standard Industrial Classification (SIC) code. For further information on NAICS, see www.census.gov/epcd/www/naics.html.

Current Industrial Reports

Address inquiries concerning these data to Consumer Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Michael Taylor, 301-457-4732.

 $For \ mail \ or \ fax\ copies\ of\ this\ publication,\ please\ contact\ the\ Information\ Services\ Center,\ MCD,\ Washington,\ DC\ 20233-6900,\ or\ call\ 301-457-4673.$ 

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Table 1. Summary of Production of Principal Gases: 1997 to 1999 [Million cubic feet, except as noted]

			C	Carbon dioxide		Hydrogen, high and	Nitrogen, high and		Oxygen, high and
		Argon		[short tons]		low	low		low
Quarter and year	Acety-	high				purity	purity		purity
	lene	purity	Gas	Liquid	Solid	(100%)	(100%)		(100%)
	3251201	325120D021	3251204011	3251204021	3251204031	325120D pt.	3251207		325120A
1999									
Total	4,497	19,834	(S)	7,378,094	(S)	454,698	866,379		690,635
Fourth quarter	1,077	5,073	(S)	1,786,567	(S)	121,132	226,965		160,585
Third quarter		4,921	(S)	1,919,003	(S)	116,708	216,075	r/	155,529
Second quarter	1,148	5,004	(S)	1,877,389	(S)	112,440	210,623		194,099
First quarter	1,200	4,836	(S)	1,795,135	(S)	104,418	212,716		180,422
1998 1/									
1000 17									
Total	4,649	19,443	(S)	8,147,566	283,702	551,914	870,906		676,333
Fourth quarter		4,919	(S)	1,951,146	71,135	146,978	203,455		166,183
Third quarter		4,850	(S)	2,072,086	72,610	141,551	202,501		168,519
Second quarter	1,152	4,833	(S)	1,994,325	76,561	136,841	201,418		170,605
First quarter	1,189	4,841	(S)	2,130,009	63,396	126,544	263,532		171,026
1997 1/									
Total	4,948	17,242	(S)	6,585,772	385,556	525,833	808,183		743,023
Fourth quarter		4,175	(S)	1,841,651	120,677	159,995	176,985		189,641
Third quarter	1,165	4,042	(S)	1,595,880	119,864	154,996	175,106		190,082
Second quarter		4,628	(S)	1,659,174	75,590	109,135	227,003		182,722
First quarter	1,246	4,397	(S)	1,489,067	69,425	101,707	229,089		180,578

S Does not meet publication standards.

 $<sup>\</sup>ensuremath{\mathrm{r/Revised}}$  by more than 5 percent from previously published data.

 $<sup>1/</sup>Data \ are \ from \ Current \ Industrial \ Report \ Series, \ MA325C(98)-1 \ (MA28C(98)-1), \ Industrial \ Gases, \ is sued \ March \ 2000.$ 

Table 2. Quantity of Primary Production of Specified Industrial Gases [Million cubic feet, unless otherwise noted]

Product code	Product description		Fourth quarter 1999		Third quarter 1999	Fourth quarter 1998
3251201011	Acetylene Produced for compression, including cylinder and pipeline		1,077	b/	1,072	1,202
			(S)		(S)	206
3251201021	Produced for pipeline shipment, excluding that shipped to be compressed, and for consumption in same plant	a/	969	a/	932	996
	Carbon dioxide: [short tons]					
3251204011	Gas, including amounts produced and liquefied		(S)		(S)	(S)
3251204021	Liquid, including amounts produced	,		,		
3251204031	and used to make dry ice Solid (dry ice)	a/	1,786,567 (S)	a/	1,919,003 (S)	1,951,146 71,135
325120D021	Argon, high purity: Produced for cylinder and bulk					
	delivery and pipeline shipments, and					
	for consumption in same plant	a/	5,073	a/	4,921	4,919
	HydrogenGas produced for:	a/	121,132	b/	116,708	146,978
325120D031	Merchant shipment 1/		(D)		(D)	(D)
325120D041	Pipeline and on-site use 1/	. /	(D)	. ,	(D)	(D)
325120D051	Consumption in same plant Liquid produced for:	a/	43,721	a/	47,564	65,588
325120D061	Merchant shipment 1/		(D)		(D)	(D)
325120D071	Other shipments or uses 1/	a/	77,411	b/	69,144	81,390
	Nitrogen	a/	226,965	a/	216,075	203,455
3251207011	Cryogenic on-site and pipeline 2/		(D)		(D)	(D)
3251207021	Noncryogenic processes by industrial					
	gas producing companies, including psa, vpsa, membrane, etc. 2/		148,415		137,272	126,748
	Captive uses for consumption in		110,110		10.,2.2	120,710
3251207031	same plant (user owned): Cryogenic processes 3/		(D)		(D)	(D)
3251207031	Noncryogenic processes, including		(D)		(D)	(D)
	psa, vpsa, membrane, etc. 3/		(D)		(D)	(D)
3251207051	Liquid produced for:  Merchant shipment	a/	64,424	a/	60,870	62,407
3251207061	Consumption in same plant 3/		8,757	b/	11,100	4,635
3251207071	Other shipments or uses		5,369		6,832	9,666
	OxygenGas produced by:	<b>b</b> /	160,585	b/	155,529	166,183
325120A011	Cryogenic on-site and pipeline 4/		(D)		(D)	(D)
325120A021	Noncryogenic processes by industrial gas producing companies, including					
	psa, vpsa, membrane, etc. 4/		121,319	r/	116,472	126,826
	Captive uses for consumption in same plant (user owned):		,-		-,	-,-
325120A031	Cryogenic processes 5/		(D)		(D)	(D)
325120A041	Noncryogenic processes, including		(P)		<b>(P)</b>	(F)
	psa, vpsa, membrane, etc. 5/ Liquid produced for:		(D)		(D)	(D)
325120A051	Merchant shipment	a/	25,296	a/	23,868	26,638
325120A061	Consumption in this plant 5/		9,791		10,279	7,146
325120A071	Other shipments or uses		4,179		4,910	5,471

 $<sup>\</sup>label{eq:continuous} D \ \ \mbox{Withheld to avoid disclosing data of individual companies.} \quad \ \ r/Revised by 5 percent or more from previously published data. \quad \ \ S \ \ Does not meet publication standards.$ 

Note: The percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated.

 $<sup>1/</sup>Product\ codes\ 325120D031,\ 325120D041,\ 325120D061,\ and\ 325120D071$  are combined to avoid disclosing data of individual companies.

 $<sup>2/</sup>Product\ codes\ 3251207011$  and 3251207021 are combined to avoid disclosing data of individual companies.

 $<sup>3/</sup>P roduct\ codes\ 3251207031,\ 3251207041$  and 3251207061 are combined to avoid disclosing data of individual companies.

 $<sup>4/</sup>Product\ codes\ 325120A011$  and 325120A021 are combined to avoid disclosing data of individual companies.

 $<sup>5/</sup>Product\ codes\ 325120A031,\ 325120A041$  and 325120A061 are combined to avoid disclosing data of individual companies.

Table 3. Production, Exports, Imports, and Apparent Consumption of Industrial Gases [Million cubic meters, unless otherwise noted]

Product code	Product description	Manu- facturers' production	Exports of domestic merchan- dise 1/	Percent exports to manu- facturers' net production	Imports for consump- tion 2/	Apparent consumption 3/	Percent imports to apparent consump- tion
	Third quarter 1999						
3251204	Carbon dioxide, gas, liquid, and solid	(0)	27.122	(0)	0.010	(0)	(0)
	[metric tons]	(S)	25,126	(S)	6,013	(S)	(S)
325120D021	Argon	139	79	56.7	6	66	8.5
325120D031 325120D041 325120D051 325120D061 325120D071	Hydrogen	3,305	102	3.1	16	3,219	0.5
3251207	Nitrogen	6,119	24	0.4	20	6,114	0.3
325120A	Oxygen	4,405	49	1.1	3	4,358	0.1
3251204	Second quarter 1999  Carbon dioxide, gas, liquid, and solid						
	[metric tons]	(S)	14,919	(S)	3,767	(S)	(S)
325120D021	Argon	142	73	51.5	6	75	8.0
325120D031 325120D041 325120D051 325120D061 325120D071	Hydrogen	3,184	79	2.5	26	3,131	0.8
3251207	Nitrogen	5,965	31	0.5	40	5,974	0.7
325120A	Oxygen	5,497	56	1.0	7	5,448	0.1

S Does not meet the publication standards.

<sup>1/</sup>Source: Census Bureau report EM 545, U.S. Exports. 2/Source: Census Bureau report IM 145, U.S. Imports for Consumption. 3/Apparent consumption is derived by subtracting exports from the total of net production plus imports.